SCHEDULE AND COST RESERVES
WITHIN THE FRAMEWORK OF
EIA-748
AACE® International Recommended Practice No. 75R-13

SCHEDULE AND COST RESERVES WITHIN THE FRAMEWORK OF EIA-748

TCM Framework: 7.3 – Cost Estimating and Budgeting
7.6 – Risk Management
9.1 – Project Cost Accounting
10.3 – Change Management

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Note: As AACE International Recommended Practices evolve over time, please refer to web.aacei.org for the latest revisions.

Any terms found in this AACE International Recommended Practice supersede terms defined in other AACE work products, including but not limited to, other recommended practices, the Total Cost Management Framework, and Skills & Knowledge of Cost Engineering.

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1. INTRODUCTION

1.1. Scope

This recommended practice (RP) of AACE International describes the definition, purpose, management, and control of schedule and cost reserves on projects being implemented under Electronics Industries Alliance (EIA) - 748 Earned Value Management Systems (EVMS) guidelines [1] with a focus on Federal Acquisition Regulation (FAR), required for projects funded by the United States government. This includes contingency, management reserve (MR), schedule margin (SM), undistributed budget (UB), and authorized unpriced work (AUW). Overall use of management reserve for programs and portfolios are not within the scope of this document. This document elaborates and provides additional detail that is consistent with, however not included in the EIA-748 standard. This recommended practice is intended to provide guidelines from the owner and contractor perspectives and not intended to be a standard.

1.2. Purpose

This RP specifically provides guidance regarding the management and use of management reserve and undistributed budget on projects executed using earned value management (EVM) techniques consistent with the EIA-748 standard. This RP defines the non-time-phased components of the contract budget baseline (CBB) and may be used when project management consistent with EVM tenets is implemented and practiced in a disciplined manner.

In this RP, the cost contingencies are mitigated through the use of management reserve and schedule contingencies in schedule margin. Also, undistributed budget is defined as the amount of the budget of the performance measurement baseline that has yet to be allocated either to control accounts or to summary level planning packages.

This RP covers the scope of EIA-748 Guidelines 14 and 15 entirely, and components of EIA-748 Guidelines 8, 28, 29, 30 and 32 regarding revisions and change control (as listed in the National Defense Industries Association (NDIA) Integrated Program Management Division (IPMD) EVMS Value Management Systems Intent Guide). [2]

2. RECOMMENDED PRACTICE

2.1. Terminology within the RP

The terms management reserve and contingency are used in different context in different communities and industries. This can create significant confusion in discussion of ownership and use. This RP will be used in the context of EIA-748 terminology which is a requirement for many projects; especially high cost projects including those funded by the United States government. [3] Specifically, owner level cost reserve for the management of project uncertainties is referred to as contingency and the contractor’s cost reserve is referred to as management reserve. It should also be noted that for projects that are not required to comply with EIA-748, common industry nomenclature may be used as shown in Table 1.

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1 Note there is a threshold for United States government projects which varies from agency to agency (for example projects estimated with a TPC less than $20 M for the United States Department of Energy).
Table 1 - Comparisons of terms for schedule and budget reserves created and managed on the contractor and owner level for project uncertainties (this may vary by Industry)

<table>
<thead>
<tr>
<th>Level/Type of Cost</th>
<th>Terms Used in EIA-748/Capital Programming Guide Reference</th>
<th>Terms Used in Common Commercial Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Cost Contingency</td>
<td>Contingency</td>
<td>Management Reserve</td>
</tr>
<tr>
<td>Owner Schedule Contingency</td>
<td>Contingency</td>
<td>Schedule Contingency</td>
</tr>
<tr>
<td>Contractor Cost Contingency</td>
<td>Management Reserve</td>
<td>Cost Contingency</td>
</tr>
<tr>
<td>Contractor Schedule Contingency</td>
<td>Schedule Margin</td>
<td>Schedule Contingency</td>
</tr>
</tbody>
</table>

It should be noted that for EIA-748 compliant EVMS, contingency belongs to and is managed by the owner. Allocations of contingency become contract modifications typically approved by the owner and contractor. MR and SM are the responsibility of the contractor.

The illustration, shown below in Figure 1, is a simplified representation of typical project cost and price structure that follow the Federal Acquisition Regulation (FAR), the Capital Programming Guide [3], and EIA-748 terminology with boxes representing which components of the project cost are controlled by the owner and which are controlled at the contractor level: The boxes with a light blue background indicate management at the owner level and boxes with a purple background indicate management at the contractor level. Management reserve and contingency are highlighted (circled). It should also be noted that the specifics for the management of fee are beyond the scope of this document. Unearned fee is held by the owner until the contractor completes the required activities to earn profit and/or fee. It should be noted that earned value management is handled at the cost level, starting at the negotiated contract cost (NCC), which does not include profit or fee. Further discussion of profit and/or fee is beyond the scope of this RP.

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2 Note: This requirement for contingency is derived from Federal Acquisition Streamlining Act 1994 Title 5, which requires all major acquisition projects to be achieved within 90% of goals before requiring more authorization.